

ABSTRACT OF THE DISCLOSURE

A catheter system and method are provided which change the temperature of a fluid, such as blood, by heat transfer. Selective cooling or heating of an organ may be performed by changing the temperature of the blood feeding the organ. The catheter system includes an inlet lumen and an outlet lumen structured and arranged to carry a working fluid having a temperature different from the adjacent blood. The outlet lumen is configured to induce turbulence in the adjacent fluid passing adjacent the outlet lumen.